CECW-PC

NOV 28 2011

MEMORANDUM FOR CECW-MVD (ATTN: John Lucyshyn)

SUBJECT: Marsh Lake, Minnesota, Ecosystem Restoration Project, Feasibility Report and Integrated Environmental Assessment (July 2011) - Documentation of Review Findings.

1. This memorandum transmits the documentation of policy compliance review findings for the subject project. In the opinion of the HQUSACE policy compliance review team, all policy review concerns have been adequately addressed.

2. The Office of Water project Review consideration of the subject report and environmental assessment is complete.

3. Questions may be directed to the review manager, Mark Matusiak, at (202) 761-4700.

Encl

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Planning and Policy Division
Directorate of Civil Works

DOCUMENTATION OF REVIEW FINDINGS

MARSH LAKE, MINNESOTA
ECOSYSTEM RESTORATION PROJECT

FEASIBILITY REPORT
AND
ENVIRONMENTAL ASSESSMENT

July 2011

HQUSACE Project Guidance Memorandum
Marsh Lake Ecosystem Restoration Project
Big Stone, Lac qui Parle and Swift Counties, Minnesota
Final Feasibility Report and Integrated Environmental Assessment
Dated July 2011

A. Background.

1. Study Area. Marsh Lake is on the Minnesota River between Swift and Lac qui Parle Counties near Appleton, Minnesota. The Marsh Lake Dam is owned and maintained by the Corps of Engineers as part of the Lac qui Parle flood control project. The fixed-crest dam holds a conservation pool in the upper portion of the Lac qui Parle reservoir. The Works Progress Administration constructed the dam and rerouted the Pomme de Terre River into the reservoir between 1936 and 1939. The Corps of Engineers improved the dam between 1941 and 1951 as part of the Lac qui Parle flood control project. Marsh Lake lies within the Lac qui Parle Wildlife Management Area, managed by the Minnesota Department of Natural Resources.

2. Study Authorization. The feasibility study is being conducted under the authority of the 10 May 1962 resolution of the Committee on Public Works of the U.S. House of Representatives. A December 2004 Reconnaissance Study determined there was a Federal interest in pursuing solutions to the problems identified within the Minnesota River Basin, including Marsh Lake and the tributary stream Pomme de Terre River.

3. Problem. Creation of the reservoir and rerouting of the Pomme de Terre River in 1939 increased reservoir fish and wildlife habitat and created new colonial water bird habitat. It also disrupted natural river functions and processes, affecting sediment movement and floodplain function, blocking fish movement, and reducing riverine and floodplain habitats. Natural flooding and drying cycles were disrupted, reducing emergent aquatic plants and associated fish and wildlife habitats found in the area prior to impoundment.

Marsh Lake has been subject to long-term degradation. Water quality is poor. The lake is very shallow; more than 3,000 of its 5,000 acres are less than 3 feet deep. Wind and wave action resuspend sediments that have accumulated in the reservoir. The suspended sediment blocks sunlight and hinders the growth of aquatic plants. Much of the resuspended material passes downstream where it affects water quality and promotes algal growth in Lac qui Parle.

4. Plan Formulation. The restoration study is addressing measures to restore wetland habitat within the existing reservoir and to reconnect Lac qui Parle to more than 750 miles of streams in the Pomme de Terre River basin. A total of 20 potential measures have been developed to address the problems in Marsh Lake, and are categorized by type

of action, including watershed and water quality management, geomorphology measures, hydrology measures, biota measures and habitat measures. Following initial screening, ten measures were retained for further consideration.

5. Recommended Plan. The recommended NER Plan is Alternative 4. Restoration measures included in the recommended plan include

- Restoration of the Pomme de Terre River to its historic channel
- Construction of fish passage downstream of Marsh Lake Dam
- Construction of water control structure in Marsh Lake Dam
- Construction of gated culverts at Louisburg Grade Road
- Breaching of dike in abandoned fish pond
- Construction of recreation features, including pedestrian bridge across Marsh Lake Dam, shoreline fishing platforms, portage area, canoe access point, picnic tables and interpretative signage.

6. Project Costs. The estimated first cost of the project is $9,967,000, including contingency.

7. Cost Apportionment. The costs of the project would be cost shared 65% Federal and 35% non-Federal for the ecosystem restoration features ($6,151,000 and $3,311,000, respectively), and recreation features would be shared 50% Federal and 50% non-Federal ($252,000 for each party).

[Mark- I would delete this section since we don't usually document FSM comments after the AFB]

B. HQUSACE comments on the alternative formulation briefing report.

1. Planning constraints, Section 3.5, pages 102-104. HQUSACE has concerns about several of the planning constraints, as detailed in the following paragraphs.

- The first constraint states that plan formulation must comply with state and local laws. Federal water resource planning is not constrained by state or local laws, and the formulation and identification of the NER plan must not be driven by state and local laws. Consideration of state and local laws may be a factor in the selection of the recommended alternative, and any preferred alternative consistent with state and local laws may be presented as a locally preferred plan (LPP). Consistent with 40 CFR 1506.2, the NEPA document should discuss any inconsistency that a proposed action may have with state of local plans or laws. HQUSACE requests that this constraint be modified to restrict the scope to only Federal laws, or alternatively, deleted in its entirety.

MVP response: Constraint #1 was modified accordingly. A list of final plan formulation constraints is included below.

HQUSACE Assessment: **The issue is resolved.**

- The second constraint, concerning use of private lands, is not a valid constraint. The plan formulation process must not be constrained by an arbitrary and undefined standard such as "administrative complexity". HQUSACE requests that this constraint be deleted.

MVP response: In accordance with ER 1105-2-100.Appendix E. Section V.E-30.f, land acquisition in ecosystem restoration plans must be kept to a minimum. Given that there are substantial public land holdings within the general project area, a conscious effort was made to focus on public lands for the siting of project features. A list of revised plan formulation constraints is included below.

HQ Assessment: Constraint #2 on page 106 of the report should be deleted because it is an artificial and arbitrary statement without any apparent relevance to the issue at hand. The review team does not have any real problems with the measures that have been formulated for this project, and HQUSACE is not pressing district to look outside of the existing public lands. Seems to be a statement without a purpose, and should simply be deleted. Similar statement should be deleted from table in Section 4.2, page 132 of the report.

MVP response: Constraint #2 was removed from the draft report prior to public review.

HQUSACE Assessment: **The issue is resolved.**

- Constraint number 4 (c) discusses the fish community at Lac qui Parle and Marsh Lake. As written, this section could be interpreted to mean that impacts to all species in the lakes, including the common carp, must be minimized. Given that one of stated purposes of the project is to improve habitats that favor native fish over non-native fish, this constraint should be clarified.

MVP response: Constraint #4 was modified accordingly in the draft report prior to public review. A list of final plan formulation constraints is included below.

HQUSACE Assessment: **The issue is resolved.**

- Constraint number 5 states that the hunting and fishing uses of Marsh Lake necessarily constrain the potential hydrological management of the area. While recreational hunting and fishing uses may be considerations in the selection of a locally preferred plan, be advised that recreation is not a primary mission of the Corps of Engineers. The proposal to limit potential ecosystem restoration measures in favor of recreational activities implies that the true

purpose of the project is recreation, and that there is no Federal interest in the project. HQUSACE recommends that this constraint be deleted.

MVP response: Constraint #5 was removed from the draft report prior to release for public review. A list of final plan formulation constraints is included below.

1. The planning process must be consistent with all applicable Federal laws, Executive Orders, Agency Regulations and other applicable policy.

2. The formulation of alternative measures should avoid, to the greatest extent possible, the reduction of the flood damage reduction benefits provided by the dams.

3. In its existing condition, Marsh Lake and the Pomme de Terre River provide functional habitat for a number of species. A universal constraint in the planning of ecosystem restoration projects is the maxim that the restoration activities should not degrade, but rather seek to improve, the existing function of the ecosystem from its current state. Consideration of the potential adverse impacts to species within the project area therefore imposes constraints on the development of alternative measures. Specific biotic considerations include:

- *a. American Pelicans – a colony of nesting and breeding pelicans inhabits Marsh Lake during the summer months. Pelicans seek refuge on islands in the lake. Changes to water levels within the lake should minimize the impact on the isolation of these islands.*
- *b. Mussels – A diverse mussel community exists within the lower reaches of the Pomme de Terre River. Consideration of project alternatives should minimize the impacts to this community and its future viability.*
- *c. Fish Community – while the community is primarily dominated by common carp (an invasive species), Lac qui Parle and Marsh Lake also support communities of native fish. Changes to water levels resulting from alternative measures must minimize negative impacts on the native fish community, particularly valuable northern pike spawning habitat in the upper end of Marsh Lake.*

HQUSACE Assessment: **The issue is resolved.**

2. CE/ICA. Section 5 of the report discusses the optimization and best buy analysis. Review of Table 5-1 leads to some questions on the data presented for average annual habitat units presented on some alternatives. The data through Alternative 42 appears to be consistent as far as AAHU being additive when individual features are combined. However, there are some anomalies in the data presented for Alternatives 43-48. For instance, comparing Alternatives 43 and 41 and Alternatives 44 and 42 shows an increase of 37 AAHUs for the addition of the Marsh Lake Dam Modification feature for an average annual cost increase of $70,881. In contrast, Alternative 5 shows the dam modification feature alone to have AAHUs of 483 associated with that same cost increase. It isn't evident why that would be the case and seems to underestimate the contribution of the measure when added to Alternatives 41 and 42 to make Alternatives 42 and 44. Comparing Alternatives 44 and 48, the addition of the islands measure adds 564 AAHUs (i.e., 8,508 AAHUs minus 7,944); whereas Alternative 3 shows the islands have outputs of 239 AAHUs. If the value of 239 AAHUs is used as the incremental increase to Alternatives 41 and 42, the respective outputs would be 8,385 and 8,390 AAHUs. This may then show Alternative 44 is a best buy plan and leads to questions as to why the last increment for island construction is worth the investment. The appropriate AAHUs attributable to plan 48(Alternative 4) appear to be 8,629. Changing the plotting points on Figure 5-14 would shift the best buy curve between Alternatives 2 and 4 as well as showing a greater increase in going to Alternative 4 on Figure 6-1. The reviewers in the OASA (CW) have previously challenged reports that recommend the maximum scale plan, because the largest scale plan is a best buy plan by definition.

The CE/ICA analysis should be reviewed and revised as needed to address the anomalies in outputs and reconsider the incremental justification for the last added increments, since this may impact the break points in Figure 6-1 and the tentatively selected plan. The incremental cost shown in Table 5-1 for Plan 3 (island construction) is $936.71/AAHU compared to $146.13/AAHU for Plan 5 (dam modification). Similar incremental values would be expected in Figure 6-1 for adding these measures to Alternative 3, resulting in a very large cost increase for the last increment. The text in Section 6.5 regarding outputs and costs should also be revised as needed. See E-36 of ER 1105-2-100.

MVP response: The IWR-Plan formulation and analysis was rerun based on the AFB discussion. The draft report was revised to include a new CE/ICA analysis and tentatively selected plan (TSP) which includes the final array of measures except for construction of islands in Marsh Lake.

HQUSACE Assessment: **The concern is resolved** based on the response and revisions to the CE/ICA analysis and selected plan as shown in the report.

3. Base Year. The report does not clearly state the base year or specify the period of analysis. For instance, the optimization and best buy analysis on page 135 indicates that the period of analysis is 50-years, but it isn't stated what the base year is and which years

are in the 50-year period. The base year should be estimated using a realistic estimate of the schedule to complete the feasibility report, accomplish PED, and construct the project following its authorization. The period of analysis for projecting the future with and without project conditions should be the 50-year period following the base year when the project features are completed and producing benefits. The text should be revised to clearly indicate the assumed project base year and the period of analysis to assure that the without and with project conditions are being evaluated over the appropriate period as a basis for measuring outputs, costs, and other significant effects. See ER 1105-2-100, paragraphs 2-3.b., 2-4.b.(1), and 2-4.j.

MVP response: Given that the future conditions are assumed to be a static, stable, degraded state, a base year was not originally included in the report, however, Section 2.10 of the draft report was updated with base year 2014 prior to release for public review.

HQUSACE Assessment: **The concern is resolved** based on the response and revisions to the CE/ICA analysis and selected plan as shown in the report.

4. Discount Rate. The text on page 135 states that a discount rate of 4-5/8% was used in the analysis of average annual costs. The recreation analysis described on page 176 uses a discount rate of 4-3/8%. The applicable discount rate for report products submitted in FY 11 is 4-1/8% in accordance with Economics Guidance Memorandum #11-01. The text should be revised to show the economic evaluations using the correct discount rate. Future submissions should be also adjusted to reflect any further changes in discount rate as the study progresses.

MVP response: The draft report was updated with the current discount rate of 4-1/8% prior to release for public review.

HQUSACE Assessment: **The concern is resolved** based on the response and revisions to the recreation analysis as described in the report.

5. Screening of Measures. The text on screening of measures in Section 4.1 appears inconsistent with the information in Table 4-2, which leads to questions on the potential impact on lake conditions used for analysis. It isn't clear that sufficient consideration was given to some measures that are eliminated from the study which are being considered for implementation by others. The text on BMPs in paragraph 4.1.1 states that a variety of watershed BMPs can be implemented by landowners with state and USDA assistance to reduce sediment and nutrient loading to Marsh Lake and Lac qui Parle. Paragraph 4.1.2 indicates that restoration of wetlands that have been drained for agriculture can be implemented by land owners with cost share assistance from USFWS, the state and USDA. Paragraph 4.1.3 states that stream bank stabilization can reduce loading of sediment and nutrients to Marsh Lake and Lac qui Parle. In contrast, Table 4-2 indicates none of these measures can be implemented at Marsh Lake and they are therefore not retained for further consideration. Page 129 indicates that these measures are being considered in the Minnesota River Basin Watershed study, so they appear to warrant

some consideration as potential solutions. Corps policy on formulation indicates that alternatives should not be limited to those which the Corps could implement, and plans that could be implemented by other Federal agencies, state and local entities and non-government interests should also be considered. Further discussion should be included in the report on the potential effectiveness of these measures, how they might impact future conditions in the study area, their effect on other plans being considered, and their status in the watershed plan. See 2-3.c.(1) of ER 1105-2-100.

MVP response: Measures could be implemented by others within the watershed (including other Federal agencies) to reduce loading to the lake which would partially achieve the objectives of the study. However, rerouting of the Pomme de Terre is the only alternative which would completely eliminate loading to Marsh Lake leading to the desired outcome. Other stressors to the system such as sediment resuspension and ecosystem connectivity could only be addressed at the site. Section 2.10 was updated to reflect the absence of planning efforts by others which would affect future without-project conditions or implementation by others.

HQUSACE Assessment: **The concern is resolved** by the response and changes to Section 2.10 of the report.

6. Recreation Analysis. The recreation analysis does not clearly describe the economic justification of the recreation features being recommended as part of this project. There are no discussions of OMRR&R costs or a BCR shown for the proposed facilities. It is not evident whether the benefits shown on page 176 relate to the incremental recreation improvements being proposed or the cumulative benefits of the proposed improvements and the facilities which currently exist. The text indicates there are several fishing facilities and six boat landings currently. The proposed improvements include signage, a pedestrian bridge to provide improved fishing access across the dam, a canoe access, portage area, and fishing platform at Pomme de Terre, and other shoreline access upgrades. The average annual benefits include fishing, boating, wildlife viewing, and picnicking, but no picnic facilities are described in the recommended improvements Page 192 provides a confusing discussion of NED contributions which adds net recreation benefits to the costs of restoration features to show what is called the NED account contributions. Costs are negative contributions to the NED account. The NED ecosystem restoration costs are separately justified based on the CE/ICA analysis and the recreation justification needs to be shown separately. Clarification is needed and the economic justification of the recommended recreation features needs to be demonstrated.

MVP response: The Table under Section 8.2 will be updated to reflect only the net recreation benefits as the contribution to the NED account. This will be updated in the draft report prior to public review.

HQ Assessment: The comment is not yet resolved. The response to the comment states that the table will be updated in the draft report prior to public review to reflect only the net recreation benefits. It is still not clear from the text that the benefits attributed to the project relate to the features being provided as opposed to a larger recreation and trail

system. It does not appear that the plan includes any picnic facilities although picnicking benefits of $14,381 are shown in Table 7-8. Section 7.2.2 states benefits attributable to the proposed trail system were based on projected demand. However, this project is described as providing connectivity to the system with a pedestrian bridge across the spillway on page 185. Therefore, it isn't clear whether the benefits are incremental to this project's features versus the larger trail system. Please clarify.

MVP response: Picnicking was added to the list of recreation features included in Section 7.2.1. Picnic tables were included as a feature within the cost estimate and recreation analysis, but were omitted from the narrative. This oversight was corrected in the draft report submitted for public review.

HQUSACE Assessment: **The concern is resolved** by the district's response and text changes incorporated into the report.

7. Average Annual Habitat Units. The method for calculating the average annual habitat units for each species is not clear. On page 4-8 Table 4 shows the calculation for the no action future condition AAHUs for diving ducks. It appears that the cumulative annual habitat values shown for years 1, 5, 25, and 50 are added together and then divided by 50 to calculate the AAHU. Calculations are done similarly for other species and alternative conditions. Please clarify what is meant by the cumulative values in those years and how the weighting of the values is being considered to represent the average over the 50-year period. The AAHU is normally developed using the HU value estimated for each year during the period of analysis. The annual values are then summed and divided by 50 to develop the average annual value over the period of analysis.

MVP response: This issue was discussed at length at the AFB. MVP has agreed to reevaluate the combinability of certain plans, and through correspondence received on 03/11/11, Headquarters has concurred with the general approach as presented in the report and Appendix E submitted for AFB.

HQUSACE Assessment: **The concern is resolved** by the response.

8. Cost Sharing. The cost sharing for the Federal Government and Local Sponsor are not yet developed in Sections 9.21 and 9.2. However, care should be taken to make the distinction between requirements for recreation versus ecosystem restoration features. Ecosystem restoration features are cost shared 65% Federal/35% non-Federal with 100% non-Federal OMRR&R. Recreation features would be cost shared 50%/50% with OMRR&R a local responsibility in accordance with the cost sharing established by WRDA 1986, as amended. See E-51 of ER 1105-2-100 regarding cost sharing for recreation features.

MVP response: Duly noted. Implementation responsibilities under Section 9 will be included in the draft report prior to public review. Please note that the Articles of Cooperation listed under the recommendation require resolution of the RIT prior to completion.

HQUSACE Assessment: This comment is not fully resolved. Section 9.1 has appropriate language regarding the Federal and non-Federal shares for the ecosystem and recreation components of the plan. However, the text in Section 11- Recommendations should also be revised since it shows the sponsor's share as 35% and does not mention the recreation cost sharing. The numbers shown in Section 11 appear to be weighted values based on both purposes.

RE: Table 9-2 has been added to clarify cost-share responsibilities. Recreation cost-share language has been amended into Section 11 under Recommendation b.

HQ Assessment: **The concern is partially resolved.** Table 9.2 should be modified to show that LERRD is a non-Federal responsibility rather than being cost shared 7,000 Federal and 3,000 NF. PED is cost shared 75% Federal and 25% non-Federal and adjusted to project cost sharing during the first year of construction. Adjustments should be made to the construction cost sharing line so that the total cost shares remain 65% Federal and 35% NF as shown.

9. Performance standards and adaptive management and monitoring plan. The report does not include a monitoring and adaptive management plan or ecological success criteria, as required by Section 2039 of WRDA 2007, as discussed in the Corps' August 31, 2009 implementation guidance. (Note: Section 7.5 of the feasibility study titled *Monitoring and Adaptive Management* is empty.) The implementation guidance states that the decision document must describe the rationale for the monitoring plan, describe the adaptive management plan and include performance standards for judging ecological success. The monitoring and adaptive management plan and success criteria should be included in the draft report so that it is available for public review and comment.

MVP response: A monitoring and adaptive management plan was recently completed and will be included in the draft report as Appendix R prior to public review.

HQUSACE Assessment: The issue is resolved. The adaptive management plan and performance standards are found in Appendix R.

10. Section 404(b) 1 Guidelines analysis. The report does not include a 404(b)1 Guidelines analysis, as required by ER 1105-2-100, paragraph C-6 (c). As stated in the guidance, this analysis is supposed to be completed during the feasibility phase. The completed 404(b) (1) Guidelines analysis is needed in order to apply for CWA Section 401 water quality certification.

MVP response: A Section 404(b)1 analysis was recently completed and will be included in the draft report as Appendix D prior to public review.

HQUSACE Assessment: The issue is resolved by inclusion of the 404(b) (1) Guidelines analysis in the draft report.

11. Summary of environmental compliance, pages 184-191. Several of the summaries of compliance with the various laws listed in this section of the report are merely conclusory statements that present no data or analysis to demonstrate how the project is in compliance with the law or executive order. As an example, with regard to EO 12898, the report states that the requirements of the EO have been met through the public meetings held by the Minnesota DNR. However, the report does not describe how these meetings satisfy the requirements of the EO to elicit and consider the views of potentially affected minority and low income populations (note: Section 2.9.5 states that the three counties in the study area have a higher percentage of people below the poverty level of income than the state average). At a minimum, the report should discuss the outreach efforts to any potentially affected populations, summarize the views of these populations and briefly discuss how their views were considered in the planning process. While it appears to be unlikely that there would be disproportionate impacts from the project to the communities of interest, the report should clearly demonstrate that the executive order has been followed.

MVP response: See response above regarding Public Scoping. This issue was discussed at length at the AFB. MVP has agreed to reevaluate compliance with EO 12898, and through correspondence received on 03/11/11, Headquarters has concurred with the general approach as presented in the report and Appendix E submitted for AFB.

HQUSACE Assessment: The issue is resolved.

12. Real estate.

- The report should explain why it is so administratively difficult to acquire private lands as to exclude that as an option for the study. If private lands are found to be necessary, will the study be able to continue?

MVP response: In accordance with ER 1105-2-100.Appendix E. Section V.E-30.f, land acquisition in ecosystem restoration plans must be kept to a minimum. Given that there are substantial public land holdings within the general project area, a conscious effort was made to focus on public lands for the siting of project features. The plan formulation constraint related to acquisition of private lands has been modified and is included above in Comment Section 1.

HQUSACE Assessment: The issue is resolved.

- Is the project consistent with the term of the leases? Will the leases need to be modified/terminated?

MVP response: This issue is currently being investigated. Is it assumed that any necessary changes to the leases will be made during Preconstruction, Engineering and Design Phase.

HQUSACE Assessment: The issue is resolved.

- REP para. 11: The REP should describe the real estate administrative costs ($10,000)?

MVP response: The REP will be updated to reflect this change in the draft report prior to public review.

HQUSACE Assessment: The issue is resolved.

- REP para. 11 & 15: Are the borrow sites that may be needed located on lands already owned, or will private lands be required? If private lands may be required, discuss throughout the report, include in the NFS assessment, and adjust the cost estimates.

MVP response: The current borrow area is located on lands owned by the non-Federal sponsor.

HQUSACE Assessment: The issue is resolved.

C. HQUSACE comments on the draft report.

1. Rounding of Dollar Values. Throughout the report the cost and benefit values should be rounded. They are currently shown in many places down to the dollar, and in some cases in dollars and cents. Examples include Section 7.1 on page 176-recommended plan, Table 7-9 on page 193 selected plan costs and benefits, Section 7.2.2 on pages 191, 192-recreation benefits and costs, page 193-Section 7.5 Cost Estimates, page 199- Table 9-1 on costs by FY, and page 202-Section 11 recommendations. Annual benefits and costs are typically rounded to the nearest thousand dollars and first costs to 4 or 5 significant digits. Prior to public coordination, at a minimum, cost and benefit values shown in the executive summary, final recommendations and cost sharing sections of the report should be rounded accordingly.

MVP response: Summary cost figures such as those found in the Executive Summary, Section 7.1, Table 7-9, and Tables 9-1 and 9-2 have generally been rounded to the nearest thousand. Analytical cost figures such as those included in Table 5-1, Table 6-2 and other areas of analysis have not been rounded in order to demonstrate the accuracy of the analysis.

HQUSACE Assessment: **The concern is resolved** by the response and changes to the costs throughout the text.

2. Constraint #2 on page 106 of the report should be deleted because it is an artificial and arbitrary statement without any apparent relevance. The review team does not have any real problems with the measures that have been formulated for this project, and HQUSACE is not pressing district to look outside of the existing public lands. Seems to be a statement without a purpose, and should simply be deleted. Similar statement should be deleted from table in Section 4.2, page 132 of the report.

MVP response: Constraint #2 has been removed.

HQUSACE Assessment: **The issue is resolved** through the deletion of Constraint #2.

D. HQUSACE comments on the July 2011 final feasibility report.

1. Ecological significance, Section 3.6. The discussion of significance in Section 3.6 of the final feasibility report includes factors of infrastructure and cultural and historical significance that are inconsistent with section C-3 (4) (a) of ER 1105-2-100. The description of significance should include only ecological factors, and should not include any infrastructure features or features of cultural or historical importance. Page 110 of the report includes lists of significant infrastructure, ecological and cultural resources. Merely identifying features of significant infrastructure does not support the argument for ecological significance for the proposed plan, and HQUSACE recommends that this paragraph be deleted. The paragraph on ecological and cultural resources, and the reference to the historic importance of Marsh Lake Dam in Section B on page 111 should also be deleted. The inclusion historic and cultural features are not relevant to the discussion of ecological significance.

Notwithstanding the above comments, the information on pages 112-115 does a good job of describing why the recommended plan at Marsh Lake is nationally and regionally significant. HQUSACE requests that pages 110-111 be edited as noted above.

MVP response: The requested edits have been made to Section 3.6 of the final feasibility report, and the references to infrastructure and cultural resources found on pages 110-111 have been deleted..

HQUSACE Assessment: **The issue is resolved.**

2. Base year and period of analysis, Section 1.5.3. Recommend that the base year of 2014 be added to this section, and that the period of analysis be clearly stated as 2014 to 2063.

MVP response: The requested edits have been made to Section 1.5.3 of the fnal feasibility report. The base year of 2014 has been identified to clarify the period of analysis.

HQUSACE Assessment: **The issue is resolved.**

3. Table 9-1. The cost allocation by fiscal year includes under the third column the Total Cost plus Interest During Construction. The value shown, $10,181,000, is the Project Investment Cost which includes the $214,000 IDC as shown in Table 7.5. IDC is an economic opportunity cost that is included in the NED investment costs for BCR calculation because PED/construction ties up money that could be used to gain value in other investments, but is not a budgeted project cost. Table 9-1 should be modified to reflect the fully funded project cost, which includes inflation through the mid-point of

construction. That is a different cost value which must be considered for financial planning, but is not part of the BCR analysis since BCRs are based on constant dollars without inflation. G-9.e.(2) of ER 1105-2-100 indicates a feasibility report should display two project cost estimates: one in constant dollars and one based on projected inflation rates.

MVP response: The requested edits have been made to Table 9-1 of the final feasibility report. IDC costs have been removed and the totals have been reallocated accordingly

HQUSACE Assessment: **The issue is resolved.**

4. Non-Federal Sponsor. Section 9.1 indicates that a sponsor will be identified when implementation funds are appropriated and the State of Minnesota will likely serve as the non-Federal sponsor for construction. This is a weak statement on sponsorship at this stage of a study, since one of the key aspects of a feasibility report is demonstrating that there is a willing and capable sponsor for future project design and construction. It is suggested that this section be clarified to show stronger sponsor support by the state with a reference to a recent letter of intent and self-certification of financial capability.

MVP response: Section 9.1 of the report has been amended to indicate stronger support of the sponsor.

HQUSACE Assessment: **The issue is resolved.**

5. Public Involvement. The public involvement section of the report references "this draft Feasibility Report" on page 209 and discusses coordination of the draft report with federal agencies such as EPA and local governments and organizations as actions yet to be taken. The report should be revised to indicate this is the final report and to summarize the results of the draft report coordination with the agencies and local governments.

MVP response: Section 10 of the report has been updated as requested to document the coordination with Federal, state and local government.

HQUSACE Assessment: **The issue is resolved.**

E. Civil Works Review Board. A Civil Works Review Board was held for the project on September 27, 2011. The board members voted unanimously to approve the release of the final feasibility report for State and Agency review.

F. State and Agency Review. State and Agency review for the project was initiated on October 11, 2001 and concluded on November 10, 2011. The only response received during the review period was a letter from USEPA, Region 5 recommending that a number of best management practices be used during the construction phase to minimize temporary adverse effects. USEPA generally concurred with the analysis in the environmental assessment, and commended the amount of detail contained in the document. HQUSACE determined that no response was needed for this letter.